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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,017	06/29/2000	Chiyoaki Iijima	9319S0073COA	1371

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Harness Dickey & Pierce PLC  
P O Box 828  
Bloomfield Hills, MI 48303

EXAMINER

NGUYEN, VIET B

ART UNIT PAPER NUMBER

2871

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/607,017

Applicant(s)

IIJIMA, CHIYOAKI

Examiner

Viet B Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 29 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 22-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 22-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 29 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 5) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 6) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the light diffusing device diffusing and reflecting a light ray coming in from the second polarizing splitter device, while transmitting a light ray coming from the lighting device toward the second polarizing splitting device of claim 22 and the light exit angle control device disposed between the lighting device and the light diffusing device of claim 27 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 22, 26, 30, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Ouderkirk et al (U.S. 5,828,488).

Ouderkirk et al disclose a LCD device comprising of a polarization axis varying device (147), a first polarization splitter device (149), a second polarization splitter device (116), a lighting device (139) disposed on the side of the second polarizing splitting device opposite to the polarization axis varying device, the lighting device has a light diffusing device (137) at a surface thereof, and the light diffusing device diffuses and reflects a light coming in from the second polarizing splitter device, while transmitting a light ray coming from the lighting device toward second polarizing splitter device. As apparent to Fig. 11, light is being transmitted through the LCD device in order to make the device operative. The LCD device also comprises of a light exit angle control device (113) disposed between the second polarizing splitter device and light diffusing device.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 23-25, and 28-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Ouderkirk et al in view of Broer et al (U.S. 6,359,670).

The only difference between the LCD device of Ouderkirk et al and that of the instant claims is that there is a reflective device disposed on the side of the lighting

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device opposite to the light diffusing device and a third polarizing splitter device disposed between the lighting device and the light diffusing device. However, Broer et al disclose a LCD device comprising of a reflective device (11) disposed on the side of the lighting device opposite to the light diffusing device (as shown in Fig.1) and a third polarizing splitter device disposed between the lighting device and the light diffusing device (as shown in Fig.1). Thus, it would have been obvious to one with ordinary skill in the art in view of Broer et al to employ a reflective device on the side of the lighting device to form a radiation source (column 4, lines 30-32).

Also, it would have been obvious to one with ordinary skill in the art in view of Broer et al to employ a third polarizing splitter device between the lighting device and the light diffusing in the LCD device of Ouderkirk et al to pass or reflect linearly polarized light (column 1, lines 58-60).

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouderkirk et al in view of Broer et al as applied to claims 23-26, 28-30, and 32 above, and further in view of Winston et al (U.S. 5,528,720).

The combined product as provided by Ouderkirk et al and Broer et al meet all of the features of the device as claimed in claims 23-26, 28-30, and 32, except the feature that a light exit angle control device is disposed between the lighting device and the light diffusing device. However, Winston et al disclose a LCD device that comprises of light exit angle control device (246) between the lighting device (217) and the light diffusing device (252) as shown in Fig. 12P. Thus, it would have been obvious to one with

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ordinary skill in the art in view of Winston et al to employ a light exit angle control device in the devices of Ouderkirk et al and Broer et al for enhancing the input light.

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouderkirk et al in view of Broer et al and in further view of Winston et al as applied to claims 22-30 and 32 above, and further in view of Gunjima et al (U.S. RE37, 377 E).

The combined product as provided by Ouderkirk et al in view of Broer et al and in further view of Winston et al meet all of the features of the device as claimed in claims 22-30 and 32, except the feature that the lighting apparatus comprises of a transparent light guide. However, Gunjima et al disclose a LCD device that comprises of the transparent light guide as disclosed in column 17, lines 16-19, and shown in Fig. 1. Thus, it would have been obvious to one with ordinary skill in the art in view of Gunjima et al to employ a transparent light guide in the devices of Ouderkirk et al, Broer et al, and Winston et al to transmit light in order for the LCD device to be operative.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet B Nguyen whose telephone number is 703-305-1933. The examiner can normally be reached on Mon. through Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on 703-308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-7722.

V.N.

Viet B Nguyen  
Examiner  
Art Unit 2871

V.N.  
May 5, 2002

  
William L. Sikes  
Supervisory Patent Examiner  
Technology Center 2800